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ABSTRACT

This interim report describes progress made toward the following five objectives of a project designed to evaluate data collected by the Cooperative Project in Educational Development (COPED): (1) To evaluate the COPED instruments; (2) to produce a compilation of instruments measuring social functioning in schools; (3) to develop, field test, and publish feedback packages; (4) to produce a pamphlet on diagnosing schools; and (5) to produce a series of studies in COPED data. The report offers descriptions and critiques of three instruments as examples of progress toward the second objective. Abstracts of two completed studies and memos about two studies underway are presented as examples of progress toward the fifth objective. Illustrations of the feedback package being designed to meet the third objective are also provided. (JH)

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C O P E D P R O J E C T

Interim Report

February, 1969

PROJECT DIRECTOR: Dr. Dale Lake
Human Relations Center
Boston University

Office of Educational Contract #OEG 3-8-080069-0043 (010)
(010)

EA 002 755

As of February, 1969, progress has been made on four of the five following objectives:

1. To evaluate the COPED instruments.

2. To produce a compilation of instruments measuring social functioning in schools.

3. To develop, field test, and publish feedback packages.

4. To produce a pamphlet on diagnosing schools. (Materials on this objective are not yet in a form ready for reporting. The chapters for this pamphlet have been outlined and are currently being written by a national staff of six authors.)

5. To produce a series of studies in COPED data.

OBJECTIVE 1 (Student Instruments)

The standing committee on improving the COPED instruments has taken the following actions. Each of the instruments is being converted to a standard format which is intended to facilitate ease of reading. Specific items have been tested on new populations and those that proved to be ambiguous were discarded. In addition, all items have been subjected to item analyses using frequency plots and factor analysis. It is expected that each instrument in the COPED package will be considerably shortened through these procedures.

New instruments for students regarding race and student perceptions of classroom innovations are currently being considered for inclusion in the package. Finally, all open-ended questions in the student booklets have been eliminated.

OBJECTIVE 1 (Adult instruments)

Each of the instruments in the adult package have also undergone item analyses. Most of the various scales that were used in the origional package have now been converted to a standard format.

In addition, the instrument which requests biographical information has been re-worded in order to fit the most general set of conditions likely to be encountered in schools.

The instrument which measures sociometric structure of school building faculties has been revised and further standardized using a content analysis of 300 open end responses collected in initial data.

The instrument on Meetings, (Deck 48) which measures problem solving behavior has been factor analyzed in four independent analyses involving 15 school systems. Four major factors emerge in each analysis and items are being revised and/or deleted on the basis of these analyses.

Other instruments almost complete in their revisions are those of: Influence, and Innovations. Final reactions to the COPED instrument package itself have been eliminated.

It is anticipated that by May, a completely revised set of instruments will be ready for field testing.

OBJECTIVE 2

Under this objective, the staff has been collecting paper and pencil instruments, other than those already included in the COPED package, which are relevant to school system functioning. The easiest way to indicate progress on this objective is to provide the attached examples of current write ups.

It is anticipated that about seventy-five such instrument write ups will be included in the final report.

Title: Category-Width Scale (C-W)

Author: Thomas F. Pettigrew

Availability: The author, Department of Social Relations, Harvard University, Cambridge, Massachusetts 02138

Variables: The Category-Width scale measures a subject's typical equivalence range for classifying objects and may tap a dimension of risk-taking.

Description: The scale contains twenty items, each of which states an average estimate of some quantifiable phenomenon and then asks for the S's choice of alternative estimates as to the upper and lower bounds of that phenomenon. For example, a simulated item might be:

The average man altitude of states in the United States is 1,790 feet. What do you think:

a) is the mean altitude of the highest state....

1. 6,700 feet
2. 4,100 feet
3. 5,700 feet
4. 7,300 feet

b) is the mean altitude of the lowest state....

1. 630 feet
2. 100 feet
3. 240 feet
4. 30 feet

Administration and Scoring: The scale is self-administrating in about thirty minutes. The score for each response ranges from 0 to 3, from the largest to the smallest alternative for the upper bound, and vice versa. Scores for the a and b questions of all items are summed and range therefore from zero to 120, with the higher scores indicating broader category widths. The norms for college males and females are quite abbreviated.

Development: The first form of the C-W scale contained 14 items and solicited open-ended responses. A test by Kendall's W showed that rank orders of respondents from five college and high school samples were significantly correlated, with Ss proving to be reliably consistent in delimiting broad, medium, or narrow estimated ranges. The final form was devised with fixed alternatives; the alternatives were those which fell at the 10th, 35th, 65th, and 90th percentile for the 750 college students who replied to the open-ended forms.

Critique: The corrected Spearman-Brown reliability coefficient for a sample of 281 college students is 0.90. Six-week test-retest reliability for 97 University of North Carolina undergraduates is 0.72.

In a study of criterion validity, 26 undergraduates were presented with drawn lines on a blackboard of the average lengths of pheasants and turtles and were asked to choose among lines the longest and shortest instances of these categories. They also estimated the weight extremes of ostrich eggs with fixed sets of weights and the pitch extremes of women's singing voices and factory whistles from fixed alternatives generated by an audio-oscillator. An item analysis of the ability of C-W items to correctly distinguish between broad and narrow categories showed one-tailed t tests of p=0.10 or less for eleven items, of p=0.20 or less for a total of fourteen items. The rank-order correlation between C-W items and the criterion was 0.57, which corresponds to p less than 0.01.

Tests of concurrent validity show a correlation with the ACE quantitative score of 0.26 (p less than 0.0.) for 200 college undergraduates. "Comprehensive" categorizens in Rokeach's "narrow-mindedness" test (1951) scored significantly higher (p=0.05) on the C-W than did Rokeach's "narrow" and "isolated" categorizers. (Rokeach's "comprehensive" categorizers group all of his ten political and religious labels under one concept; "narrows" use more than one; "isolateds" omit labels.) The C-W scale does not correlate either with the California F-Scale of authoritarianism or with Rokeach's D-scale of dogmatism (1956).

Factor analysis has revealed the C-W scale to be two-dimensional. One factor consists of four time or speed items; another is more general and least related to quantitative ability.

The absense of norms is a major drawback.

General Comment: Only eleven items have sufficient criterion validity. Pettigrew himself has not researched this instrument since 1958. Just what the significance of category width is in relation to other cognitive phenomena remains intriguing but unexplored. The Category-Width Scale is recommended for research purposes only.

References:

Pettigrew, T. F. The measurement and correlates of category width as a cognitive variable. J. Pers., 1958, 26, 532-44, reprinted in Harper, R. J. C., Anderson, C. C., Christensen, C. M. & Hunka, S. M. The Cognitive process: readings. Englewood Cliffs: Prentice-Hall, 1964, 450-460.

Rokeach, M. A method for studying individual differences in "narrow-mindedness." J. Pers., 1951, 20, 219-33.

Rokeach, M. Political and religious dogmatism: an alternative to the authoritarian personality. Psychol Monographs, 1956, 70, No. 18 (Whole No. 425).

Uniterms: categorizing; cognition; flexibility; perception.

Title: Mother-Child Relationship Evaluation (M-CRE)

Author: Robert M. Roth

Availability: Western Psychological Service, Box 775, Beverly Hills, California

Variables: The Mother-Child Relationship Evaluation measures four attitudes which are hypothesized to intervene between a mother's past experiences and her present behavior towards her child. The variables are divided by dichotomy of acceptance and non-acceptance.

After Symonds' (1949) work, acceptance is represented by one variable, of the same name, and is an expression of adequacy in terms of sincerity of affect expression, interest in the child's pleasure, activities, and development, and the perception of the child as good. Non-acceptance is represented by three variables: overprotection, an expression of prenatal anxiety in terms of prolonged infantile care, prevention of development of independent behavior, and an excess of control; overindulgence, an excessive gratification of the child along with a lack of parental control expressed in terms of over-solicitation and excessive contact; and, rejection, a denial of love and expression of hate towards the child in terms of neglect, harshness, severity, brutality and strictness. Roth also postulates a confusion-dominance spectrum which indicates the degree to which one of the four attitudes dominates the relationship between mother and child. The manual (Roth, 1960b) states that the test is "primarily an exploratory and experimental one, rather than a refined clinical measurement"; the offering of clinical interpretations of cases in the manual, however, runs counter to this disclaimer.

Description: The instrument contains 48 Likert-type statements, 12 for each variable. The five responses range from "strongly agree" through "undecided" to "strongly disagree." Some simulated items are:

Children are people, just like adults.

Children can never take care of themselves.

A mother should take her child's side in a dispute.

Administration and Scoring: The booklet is self-administering without a time limit. Each item is keyed in the booklet to one of the four variables; the scoring of the responses (1-5) is indicated there as well. Variable scores are the sums of the scores of the twelve items; the confusion-dominance score is the number of variable scores which exceed the 75th percentile and therefore ranges from 1 (dominance) to 4 (confusion). Roth suggests that administration, scoring, and interpretation can be completed in thirty minutes. Norms and standard scores are included in the manual; percentiles are printed on the back of the test booklet.

Development: Roth originally devised 100 items and tested them on a sample of eighty mothers, aged 25-35, all from

middle-class backgrounds in Austin, Texas. He calculated phi-coefficients to compare the top and bottom 26% and selected the twelve most discriminating items for each variable. The mean phi-coefficients for the selected items were 0.49 (acceptance), 0.49 (overprotection), 0.44 (overindulgence), and 0.45 (rejection.)

Critique:

The split-half reliabilities (corrected by the Spearman-Brown formula) of the four variables are 0.72 (A), 0.68 (OP), 0.58 (OI) and 0.62 (R).

Evidence of concurrent validity seems limited to correlations of the four variables with four scales of the USC Parental Attitude Research Instruments. For a sample of 45 mothers of high school students in a middle-class suburb of Chicago, correlations at the 0.05 significance level were found between acceptance and the PARI scale of breaking the will (-0.34), between overprotection and PARI's avoidance of communication (0.421) and between rejection and strictness (0.34) and avoidance of communication (0.33). At the 0.01 level, the significant correlations were between acceptance and avoidance of communication (-0.47), between overprotection and PARI's fostering dependency (0.61), and between rejection and breaking the will (0.40). (Roth's overindulgence was not correlated with the PARI scales in this study.) For construct validity, Roth offers a mean correlation of -0.55 between the acceptance and non-acceptance variables for his sample of eighty, and a mean correlation among the three non-acceptance variables of 0.45.

The norms are debilitated by the narrowness of the validating sample, for which no information is given as to sampling procedure, marital history, ages and number of children, race.

Self-conscious mothers cannot but be aided in attempts to fake good by the coding of the items according to variable, the specific meaning of the variables, the percentile norms, and the scoring key to the responses -- all of which are plainly printed on the test booklet itself.

In addition, many of the items are clinches of child-rearing practices ("Children should be seen and not heard") or are vague and subject to varying interpretations depending upon inferred context or emotional set of the mother. Very few are couched in the first person; the entire test has an aura of being sanitized.

General Comment:

The validity of this test, both concurrent and construct, remains to be demonstrated. Because it attempts to be relevant to an extremely sensitive and complex arena of human interrelationships it must be scrutinized with care. Unwarranted diagnostic inferences

can too easily be read into scores for variables which both are not rigorously defined or operationalized, and whose implications are not adequately investigated. The Mother-Child Relationship Evaluation is not recommended.

References: Roth, R. H. The Mother-Child Relationship Test. Beverly Hills: Western Psychological Services, 1960a.

Roth, R. H. Manual for the Mother-Child Relationship Test. Beverly Hills: Western Psychological Services, 1960b.

Symonds, P. M. The Dynamics of Parent-Child Relationships. New York: Bureau of Publications, Teachers College, Columbia University, 1949.

Unitems: acceptance; child; mother; overindulgence; overprotection; rejection; relationship.

Title: Minnesota Teacher Attitude Inventory (MTAI)

Author: Walter W. Cook, Carroll H. Leeds, and Robert Callis.

Availability: Psychological Corporation, New York, New York

Variables: The Minnesota Teacher Attitude Inventory measures the strengths of attitudes which the authors feel are indicative of a teacher's capacity for interpersonal relationships with his pupils. As the items are constructed and construed by the authors, a high MTAI score indicates a "progressive," pupil-centered orientation.

Description: The 150 items of the MTAI are forced-choice, Likert-type statements of the following kind:

Children should be seen and not heard.

Most children are obedient.

A teacher should not be expected to do more work than he is paid for.

The five respondents run from "strongly agree" through "uncertain" to "strongly disagree."

Administration and Scoring: The inventory is self-administering in less than an hour. The responses are not scaled; rather each response is scored +1,0, or -1, depending upon the item. For example, in scoring the responses to "A teacher should not be expected to do more work than he is paid for," a response of "agree" is scored 0, and the responses "disagree," "uncertain," and "strongly agree" are all scored -1. Scores therefore can range from -150 to +150. Norms are available for high school and college students, for teacher trainees, and for experienced elementary and secondary school teachers. Student norms are subdivided by age; teacher norms, by amount of education.

Development: Starting from the teacher-pupil interaction Literature, Leeds devised 378 normative statements of the type now found in the inventory, and rewrote them in both positively and negatively worded forms. These items were tested on two groups of 100 teachers each who had been classified as "superior" or "inferior" according to three criteria: ability to win the affection of his pupils; fondness for and understanding of children; and, ability

to maintain a desirable form of discipline. One hundred sixty-four items differentiated these two groups. These 164 items had a split-half reliability of 0.909 corrected by the Spearman-Brown formula. Scores on this form were then correlated with ratings of a third sample of 100 teachers, in grades 4-6, with ratings by their principals, ratings by Leeds himself based on a modified form of Baxter's Rating Scale of Teacher's Personal Effectiveness, and ratings by pupils on a 50-item questionnaire. The correlations were 0.43, 0.49, and 0.45, respectively, all significant at the p=0.01 level. The present form of the Inventory contains 129 items from this work of Leeds; the remaining 21 items were devised by Callis.

Critique: The corrected, split-half reliability of the present form is 0.93.

To test the validity of the final form of the Inventory, Leeds and Callis separately replicated the ratings correlations outlined above. The correlations with principals, observers', and pupils' ratings were 0.46, 0.59, and 0.31 for Leeds' study and 0.19, 0.40, and 0.49 for Callis'. (Callis' sample came from grades 4-10 instead of 4-6 and he used two observers' ratings.) Sandgren and Schmidt (1956), however, found no relation between MTAI scores and critic teachers' ratings of effectiveness when they divided a sample of 393 student teachers into upper, middle, and lower categories according to MTAI scores. Male/female, elementary/secondary, and curriculum-based dichotomies were similarly unrelated to effectiveness. This lack of a relationship has been replicated by Oelke (1956) and Fuller (1951). An insight into the appropriateness of pupils' ratings as a criterion of predictive validity is provided by Della Piana and Gage (1955). Reasoning that a teachers' performance is a reflection of the values held by his pupils, they correlated MTAI scores with Leeds' "My Teacher" ratings from two samples of 20 classes. One sample contained the classes whose pupils were most desirous of cognitive support (intellectual achievement)--as opposed to affective support (social-emotional need-satisfaction)--from their teacher; the other sample contained the classes least desirous of cognitive support. The samples were differentiated on the basis of forced-choice value inventories completed by the pupils. The MTAI scores correlated with the pupils' ratings in the most cognitive-oriented classes at 0.05, with the ratings in the least cognitive-oriented classes at 0.57, a difference significant at the 0.05 level.

Several effects of response sets have been uncovered. Mitzel, Rabbinowitz, and Ostreicher (1955) identified three sets: positive intensity, the ratio of "strongly agree" to all positive responses; negative intensity, the ratio of "strongly agree" to all negative responses; and, evasiveness, the number of "undecided" responses. The negative intensity set increased the validity of the test scores; the positive intensity set had little effect; the evasiveness set diminished the test's validity. Budd and Blakely (1958)

found that respondents who checked the "strongly" extremes had scores significantly higher (p=0.01) than those who were more moderate in their responses. And Gage, Leavitt, and Stone (1957) found that scores based only upon the 112 negatively-worded items correlated with pupils' ratings at a higher level than did the entire 150-item inventory.

The evidence of fakeability is strong. Stein and Hardy (1957) retested three samples of 24 education students. A control group given the standard instructions both times increased their mean score significantly by 9.92 points. A group told the second time to fill out the inventory as they might if applying to a school system known for its "permissive atmosphere and pupil-centered point of view" registered an increase in mean score of 68.84 points. The third group was told to complete the inventory as if applying to a school system the opposite of the "progressive" one. This group of faked traditionalists registered a decrease in mean score of 141.68 points. Anonymity also affects scores, with signed inventories showing a mean increase of 7 points over unsigned inventories.

General Comment: Although several studies have failed to establish a significant relationship between critic teachers' ratings of student-teacher effectiveness and scores on the Minnesota Teacher Attitude Inventory, it should be noted that such studies did not control for the attitudes of critic teachers themselves. The intervention of the values of the observers, pupils, principals is quite likely pronounced, in Light of Della Piana and Gage's findings.

The fakeability and built-in bias towards a progressivist view of education are the MTAI's chief handicaps, especially with regard to any contemplated predictive use. In defense of the MTAI it should be noted that if respondents are not advised as to the intended use of their scores, and therefore do not know the direction in which to fake, the faceability of tne inventory becomes negligible. The non-monotonic scoring system also suggests that something more than mere agreement with the normative items is at issue in deriving an MTAI score.

If the potential user seeks to identify respondents along a "traditionalist/progressivist" continuum and can keep his respondents ignorant of his purpose, the MTAI will serve him effectively and efficiently.

References:

Budd, W. C. & Blakely, Lynda S. Response Bias on the Minnesota Teacher Attitude Inventory. J. edu. Res., 1958, 51 707-709.

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Della Piana, G. M. & Gage, N. L. Pupils' Values and the Validity of The Minnesota Teacher Attitude Inventory. J. educ. Psychol., 1955, 46, 167-178.

Fuller, Elizabeth M. The Use of Teacher-Pupil Attitudes, Self-Rating and General Measures of Generalability in the Pre-Service Selection of Nursery-School-Kindergarten-Primary Teachers. J. educ. Res., 1951, 44, 675-686.

Gage, N. L., Leavitt, G. S. & Stone, G. C. The Psychological Meaning of Acquiescence Set for Authoritarianism. J. adnorm. soc. Psychol., 1957, 55, 98-103.

Getzels, J. W. & Jackson, P. W. The Teacher's Personality and Characteristics, in Gage, N. L. (ed.) Handbook of Research on Teaching. Chicago: Rand McNally & Company, 1963, 506-582.

Leeds, C. H. A Scale for Measuring Teacher-Pupil Attitudes and Teacher-Pupil Rapport. J. appl. Psychol., 1956, 40, 333-337.

Mitzel, H. E., Rabinowitz, W. & Ostreicher, L. M. Effects of Certain Response Sets on Valid Test Variance. New York: City Colleges, Division of Teacher Education, Office of Research and Evaluation, 1955 (Res. Series No. 26).

Oelke, M. C. A Study of Student Teachers' Attitudes Towards Children. J. educ. Psychol., 1956, 47, 193-196.

Sandgren, D. L. & Schmidt, L. G. Does Practice Teaching Change Attitudes Toward Teaching? J. educ. Res., 1956, 49, 673-680.

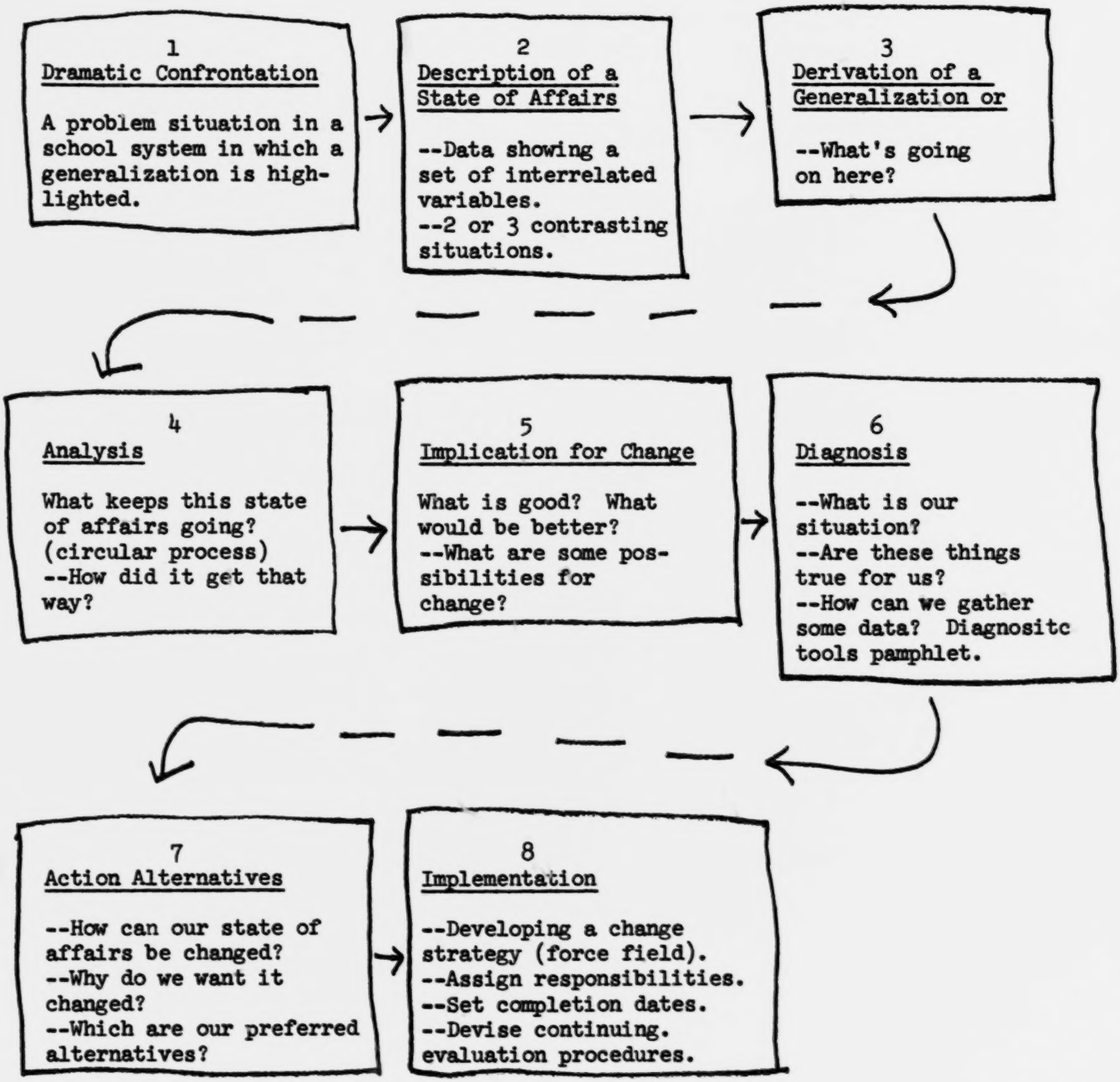
Stein, H. L. & Hardy, J. A Validation Study of the MTAI in Manitoba. J. educ. Res., 1957, 50, 321-338.

Uniterms: attitude; effectiveness; progressivist; teacher-pupil relationship; traditionalist.

OBJECTIVE 3

The design and initial field tests of the feedback packages which use COPED data to help school systems face their own problems, are complete. It is expected that two more revisions and field tests will be needed in order to develop the complete set of programmed materials needed for use of these packages by school faculties. The design and potential areas for development are contained on the next two pages.

DESIGN OF FEEDBACK PACKAGES


1
Dramatic Confrontation
A problem situation in a school system in which a generalization is highlighted.
2
Description of a State of Affairs
--Data showing a set of interrelated variables.
--2 or 3 contrasting situations.
3
Derivation of a Generalization or
--What's going on here?
4
Analysis
What keeps this state of affairs going? (circular process)
--How did it get that way?
5
Implication for Change
What is good? What would be better?
--What are some possibilities for change?
6
Diagnosis
--What is our situation?
--Are these things true for us?
--How can we gather some data? Diagnositc tools pamphlet.
7
Action Alternatives
--How can our state of affairs be changed?
--Why do we want it changed?
--Which are our preferred alternatives?
8
Implementation
--Developing a change strategy (force field).
--Assign responsibilities.
--Set completion dates.
--Devise continuing. evaluation procedures.

Potential Areas for Development of Feedback Packages

Levels of Self-Renewal

Categories of Data	Classroom and Learner	School Building	School System
1. Roles and functions			
2. Problem-solving			
3. Communication			
4. Influence			
5. Morale			
6. Rewards and sanctions			
7. Innovativeness			
8. Relations			
9. Relating to community			
10. Goals and priorities			

OBJECTIVE 5

The mission of this objective--to produce a series of studies in the COPED data--has been undertaken by tapping interest in the data already present before the funds were available. In addition, a number of doctoral students are currently developing studies within the data. Finally, the core research staff has initiated studies which seem not to be covered by either doctoral students or other interested researchers.

Currently, seven doctoral studies are either underway or completed and, in addition, other researchers have identified ten other short studies; including studies of test sensitization and studies of instrument properties.

Abstracts of two completed studies are described on the following pages. Also, memoes regarding two studies currently underway are described. The four studies demonstrate the range of variables potentially possible in the COPED data.

Other studies underway utilize variables of: morale, problem solving adequacy, rewards, executive professional leadership, openness, influence, and characteristics of principals and teachers.

Overall, the studies underway should advance our knowledge of the social psychological nature of school systems.

ABSTRACT

Recent research has indicated that teachers who share ideas about professional practices are also likely to experiment with educational innovations. Yet, in many American elementary schools, teachers are isolated, each in his own room, precluding effective sharing of resources. This study attempted, for a short period of time, to induce innovativeness by encouraging groups of teachers to discuss their professional practices.

A theoretical model of the discussion process was developed to specify the elements necessary for inducing such innovative action. The major hypothesis was that teachers who participated in group discussions would try more innovations than those who did not take part. Additional hypotheses based on the theoretical model predicted that participants would a) experience their principals (who also took part in the discussions) as knowing more about and making more evaluative comments on their work, b) acquire knowledge of their colleagues' innovations, c) increase their abilities to rate the usefulness and difficulty of innovations, d) develop ties of affiliation with each other, e) accept a group norm encouraging innovation, and f) become increasingly motivated to be innovative.

Nine elementary schools (169 teachers) in six suburban districts near New York City cooperated. In each building, the faculty was divided into two experimental treatments and a non-participating control group, and given a pretest.

Both experimental groups then spent one hour a week for six weeks in guided discussion exercises. Procedures for both treatments were parallel but the content was limited to classroom practices for Treatment 1 and to parent-teacher relationships for Treatment 2. The discussions were led by trained teachers following mimeographed guide sheets, with principals present. A posttest followed the last meeting, with a second posttest two months later.

A check of actual events during the discussions showed that teachers learned about colleagues' innovations in five sessions, felt closer to other group members during four meetings, and tried some innovations. The guide sheets were followed faithfully.

The results upheld the major hypothesis on the first posttest, with reservations. Both treatment groups reported they had tried significantly more innovations than had the controls. As predicted, the kinds of innovations attempted appeared to be determined by the content of the groups' discussions. However, the reported number of innovations in ways of working with parents was very small. For classroom innovations, differential effects were found among the buildings, favoring those schools where the sessions had produced more knowledge than average about innovations. There was a dropoff from the pretest to posttest one in the number of classroom innovations reported by all teachers. The drop was less steep for Treatment 1 than for the other groups however.

Two components of the theoretical model did not develop as predicted, and this fact may have contributed to the weakness of the innovation results. The experimental groups did not build norms encouraging innovativeness, nor did they apparently foster motives favoring innovation. It proved impossible to test the hypothesis

that teachers would increase their abilities to rate the usefulness and difficulty of innovations.

Three elements of the theoretical model received unambiguous support. Feelings of affiliation developed among members of the experimental groups. There were significant increases in the "experimental" teachers' knowledge of their colleagues' innovations. Participants (though they did not experience their principals as knowing more about their work) did perceive their administrators during meetings as making more evaluative comments to them.

As predicted, once the regular group meetings stopped, all gains disappeared. It was suggested that long-term increases in innovativeness could be encouraged by improving the design of the discussions to develop norms supporting innovation, by spacing the meetings over a longer period of time, and by training the teacher-leaders more thoroughly.

*Note: Instrumentation, access to schools and financial support was provided by the Cooperative Project in Educational Development.

ABSTRACT

COPED Study of Some Characteristics of Innovative Public School Teachers*

This COPED study identified some characteristics of innovative public school teachers and investigated the degree to which innovative teachers felt isolated or alienated within their schools. The study used data gathered by questionnaire from 594 teachers in Trenton, New Jersey prior to COPED intervention efforts.

Innovative teachers were defined as those who reported they had tried an innovation within their classrooms during the past year and who said the idea was either their own or one they picked up but modified radically. Other teachers were classified as non-innovative. 25% of the 594 teachers were classified as innovative.

32% of the male and 20% of the female teachers were innovative. This difference was significant at the .001 level. Race was not a significant factor. Fewer teachers in the 25-35 age bracket were classified as innovative than in either the 20-24 or over 35 age ranges. This difference was not quite significant at the .05 level. 26% of the tenured teachers were innovative while only 19% of the non-tenured were so classified, although this difference did not reach significance. 43% of the teachers who had graduated from non-teacher preparatory university programs were innovative. No other type of teacher-training - such as liberal arts college, teachers college, university level teacher preparatory program, etc. - produced over 25% innovative teachers. This difference was significant at the .01 level. 14% of the teachers with 3-5 years teaching experience were innovative while 24% of those with 6-20 years and 29% of those with over 20 years experience were innovative. 22% of teachers with 1-2 years experience were innovative. This result was not significant but the trend parallels that for age.

An attempt was made to determine if innovative teachers felt isolated or alienated within their schools. This did not prove to be the case. However, 38% of teachers who felt highly involved in school affairs were also innovative and only 11% of those who did not feel involved were innovative. This difference was significant at the .02 level. The innovative teachers also tended to feel that the norm of the school was that teachers should not be highly involved significantly more often than did non-innovative teachers.

*The author wishes to thank Professor Matthew Miles for his assistance with this study.

STUDENT AFFAIRS COUNSELING OFFICE

MEMO TO: COPED Study Committee

FROM: Morton H. Shaevitz

RE: Individual Project

DATE: November 25, 1968

My major interest is focusing on the issue of power and influence within educational systems. The general picture across the country is that of the "community" being served by educational systems (i.e. parents, children, various aspects of society) wishing to have greater say in how and what goes on in the classroom. At the same time, the increasing power of teachers in terms of unions becoming more militant and pay becoming more adequate, is leading many individuals to display a posture of professional independence and to resist external pressures. The type of phrase which I hear in many conversations is "nobody thinks they know enough to tell a doctor how to operate but everybody thinks they know enough to tell a teacher how to teach."

In the study which I conducted in the Washington, D. C. public school system tapping similar dimensions, it was clear that there was some strong division within teachers as to how much influence they felt that parents, students, universities and other "outsiders should have" on school system function. The trend seemed to be that approximately a quarter were very much in favor of student and parental involvement, another quarter were very much against and approximately a half did not have feelings in either direction. One of the questions that I was unable to pursue at that point, but I think I would like to in the COPED data are:

1. Are there sub-populations determined within our sample that can be identified as high receptive and low receptive in terms of their willingness to be influenced by community forces?

2. Are these populations determined primarily by individual background, personality and training characteristics or do school system characteristics or building characteristics modify these attitudes?

3. Have COPED interventions in any way effected either perceived actual influence patterns or desired influence patterns.

The following analysis steps are proposed:

1. Factor analyze deck 53, columns 25 thru 44 on first wave data.

2. Factor analyze deck 53, columns 45 thru 64 on first wave data.

The population used for the factor analysis should at this point, exclude secretarial and maintenance personnel, should be cross regional and sufficiently large to get stable factors. I predict that we will find similar, if not identical

factors on both analyses. Another prediction is that three major factors will be found:

a. An in-school system factor including the board, superintendent, principal, teachers.

b. An out-school factor within which will be found students and parents, colleges and universities and possibly a united residual factor.

3. As a result of the factor analysis we should now be able to determine an appropriate scaling procedure so that each individual can be given from one to three influence factor scores which determines his relative place on the influence continuum.

4. Isolate two populations of teachers and principals representing the top and bottom quartile of the influence dimension with regard to each of the influence scales.

5. By using deck 40, columns 16-36, see if one can construct profiles of individuals who are "high and low internal influence types" and "high and low external influence types."

6. See if one can identify by a pooled score technique high and low internal and external influence school buildings.

7. a) By focusing on deck 50, columns 25-48, begin to see if perceived principal characteristics effect influence patterns and,
   b) By focusing on decks 42-45, identify what normative pressures relate to influence patterns.

I would like reports from people working on decks 42-45 and 50, in helping to focus on the building level. If there is no one interested in these decks, I will propose additional studies dealing with them.

MEMORANDUM

TO: Dale Lake

FROM: Dan Callahan

RE: COPED RESEARCH PROPOSAL

There are two major parts to my proposal. I shall not try to follow any of the formal procedures for writing research proposals but will try to keep it from getting too discursive.

I

One project I have been thinking about but, until now, have been post-poning, is one which will test the Frequency of Change in Product Moment (FCP) technique in our data. With the existence of a data bank and data from a large number of elementary classrooms the project becomes feasible and worth doing. Essentially, the study would be an attempt to replicate influence upon the attitudes of lower class students. In addition, I would be asking the question-what effect does the student's perception of teacher attitudes have upon the student's attitudes? These questions can be answered using the data contained in items:

cols. 25-31 deck 10 Stud. Actual

cols. 39-45 deck 10 Teacher's Perc.

cols. 25-31 deck 20 Stud. Perc.

cols. 32-38 deck 20 Teacher's Actual

The hypotheses I shall test are:

1. Teacher own attitudes as represented in each of the seven items listed above, influence student attitudes.

2. The perceptions of teacher attitudes by students influence student attitudes.

3. Some attempt will be made to assess which has a greater influence, the actual or perceived teacher attitudes.

As suggested by the Yee findings, the elementary classes will have to be divided into middle and lower class. In order to do this, I shall need a median score and a distribution of responses in column 20 in the student standard field for each elementary class. In order to perform the FCP analysis, data on the classes are needed at two points in time.

II

The second major area of interest is instrument development.

a) I am chiefly interested in improving the Do's and Don'ts instrument. I was not at all pleased with the statistical properties of the conformity measures I used in my dissertation. I would like to try my hand at improving the conformity measure and thus, the instrument itself. All along I have been trying to improve this instrument with not much success beyond that represented in my dissertation. Since the instrument (or measure) was weakest when I tried to use change scores, I shall work in improving the measure by a method suggested by Carl Bereiter in Chester W. Harris (Ed.) Problems in Measuring Change. Essentially, the method proposes doing item analyses, internal consistency checks, etc. on "change items" rather than on pre-and/or post item scores as is traditional. That is, instrument development work which involves item analyses and scaling are typically performed upon time scores obtained at one testing. If, however, the primary purpose of the instrument is to measure change, then it makes sense to do the item analysis on item change scores (pre minus post). According to Bereiter, the problem of unreliability of change scores can be circumvented in this way. While this method is not apt to increase the reliability of the scores at any one testing, it does help with the score you are most interested in - the change score.

b) Another aspect of instrument development which would interest me is to push a little further with the Meetings instrument. Some fairly good work has been done on this one already. I can see doing some factor analyses trying to replicate factor structures in our 20-odd school systems. The question I would be asking of the data - does the Meetings instrument measure certain factor consistently in the different school systems?

STUDIES COMPLETE AND IN PROCESS

Complete

Chris Patrinos - Leadership characteristics of department heads in innovative high schools

Dan Callahan - Rewards, morale and cognitive dissonance

Avis Manno - Procedures and results of increasing teacher innovations

Craig Stevens - Characteristics of innovative teachers

Leo Hilfilser - The relationship of school system innovativeness to selected dimensions of interpersonal behavior in eight school systems

Warren Hagstrom - Rebelliousness in classroom

In Progress

Al Collins - Dimensions of problem solving in faculty meetings and leadership style.

Chris Daulos - Relationships among morale, rewards and goad congruency

Edward Liebowitz - Correlates of Executive Professional Leadership

Matthew B. Miles - Interpersonal norms and innovativeness.

Armita Harrison - Changes in student perceptions of teachers after sensitivity training

Daniel Callahan - Changes in response patterns over time related to test sensitization

Dale Lake and
Harvey Hornstein - Knowledgeability of system and perceived attitudes

Louis DeAngelos - Learning atmosphere as perceived by students and teachers and principal's leadership style

William Genova - A canonical correlation of seven social psychological variables with innovativeness

Mort Shaevitz - Patterns of influence in public schools

*In addition to the above substantive studies, numerous studies of instrument reliability and validity are being conducted.